Work Ord Friday, June 11												Page 1
Item ID: Revision ID:	D206-642-54	41		Accept				s s	-	Start		
Item Name:	Replacement S	Skidtube						,		Stop		
Start Date: Required Date:	6/10/2010 : 6/25/2010	Start Qty: 1.00 Req'd Qty: 1.00			Cust Item I Customer:	D:						
Reference:										~	1 (88)/(81 81	
Approvals:	Process Pla	an:	Date: 16-6-11	Tooling:	Da	ate:		F		Start		
	QC:		Date:	SPC (Y/N):	Da	ate:				Stop		
Sequence ID/ Work Center I	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reje Qty		Reject Number	Insp. Stamp
Draw Nbr	Rev	vision Nbr						-	÷			
D3274 IIN-D206-642	D Rev	/ M										!
100				0.00		.,,,						
DC		DOCUMENT CONTRO)L	0.00								

CHG003

0.00

Photocopy bluefile & type labels per PPP D206-642-541

Memo

Document Control

Dart	Aeros	pace	Ltd
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W/O:		WORK ORDER CHANGES								-
DATE	STEP	PRO	CEDURE CH	ANGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No	•	PAR #:	Fault Cate	egory:	_ NCR	: Yes N	o DQA:		Date:	
	R	esolution:							Date:	
NCR:		V	VORK ORD	ER NON-CONFORM	ANCE	(NCR)				
DATE	STEP	Description of NC Section A	Initial Action Description		Sign & Section		Verifica Section		Approval Chief Eng	Approval QC Inspector
			Chief Eng	Chief Eng		Date				
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Work	Ord	er ID	59782
W OIL	$\mathbf{v}_{\mathbf{i}}$	\mathbf{u}	J / 104

Friday, June 11, 2010 11:43:14 AM



Page 2

Item ID:

D206-642-541

Accept

Setup Start

Stop



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

Required Date: 6/25/2010

6/10/2010

QC:

Start Qty: 1.00

Req'd Qty: 1.00



Cust Item ID:

Customer:

Tool ID

Reference:

Α	pp	rova	us:	

Process Plan:

Date:_____

Date: Tooling:

SPC (Y/N):

Set Up/

Run Hours

Date: Date:

Tool # Plan

Code'

Start



Reject

Qty

Run

Accept

Qty

Stop Reject

Number Stamp

Insp.

Sequence ID/ **Work Center ID**

110

Skidtubes Skidtubes

Operation

Description

Skidtubes

Memo

0.00

0.00

****VERIFY AND INSPECT THE MATERIAL PRIOR TO USE****

1- Bend FWD end of tube using bend prog D3274 FWD dwg D3274, cut fwd end of tube with saw table setup D3274.

2- remove fwd indexing ridge as per dwg D3274. Prepare for welding

3- weld fwd cap as per dwg D3274 and Q\$1004 AR Aluminum Rod Batch: 112507/114242

4- grind fwd cap weld on top surface only

5- Cut AFT end of tube at 170.9" as per dwg D3274 and deburr end

6-Drill Aft cap pilot hole using DT8025

7 -Cleco DT8025 in position and install pilot hole drill Jig DT8742A,B,C,D. Drill 3/16" pilot holes as per Dwg D3274

8 -Remove inner indexing ridge on aft end of skidtube as per Dwg D3274 scribe batch #

9 -Open aft end cap holes to Ø0.208" as per Dwg D3274. Deburr aft end.

Dart	Aeros	pace	Ltd
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W/O:		WORK ORDER CHANGES								3 4	
DATE	STEP	PRO	CEDURE CH	IANGE	В	у	Date	ty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
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Part No	•	PAR #:	Fault Ca	tegory:	_ NCR: `	Yes N	lo DQA:		Date:		
Resolution:			Disposit	ion:	QA: N	C Clo	sed:	Date:			
NCR:		V	VORK OR	DER NON-CONFORM	ANCE (I	NCR)					
DATE	STEP	Description of NC Section A	Initial Chief Eng	Corrective Action Section Description Chief Eng		ign & Date	Verifica Section		Approval Chief Eng	Approval QC Inspector	
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Work Order ID 59782

Friday, June 11, 2010 11:43:14 AM



Page 3

Item ID:

D206-642-541

Accept

Setup Start

Stop



Revision ID:

Item Name: Replacement Skidtube

Required Date: 6/25/2010

6/10/2010 Start Qty: 1.00

Req'd Qty: 1.00



Date:____

Cust Item ID:

Customer:

Reference:

Start Date:

A	pprovals:	
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Process Plan: ____ Date:

QC:

Tooling:

Date: Date:

Start Run

Stop



Sequence ID/ Work Center ID

HandFinish

Hand Finishing

Operation Description

Chemical Conversion Coat per QSI005 4.1

Memo

Set Up/ **Run Hours**

0.00

0.00

SPC (Y/N):

Tool ID

Tool # Plan Code

Accept Qty

Reject Qty

1 Marb/16

Reject Number

Insp. Stamp

QC3- Inspect Part Finish

0.00

Memo

Quality Control

130

QC

QC5- Inspect part completeness to step on W/O

Memo

0.00

510/06/66

140

Quality Control

Dart Ae	rospace	Ltd						,	· · ·
W/O:			W	ORK ORDER CHANGE	S		1		· · ·
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Friday, June 11, 2010 11:43:14 AM



Page 4

Item ID:

D206-642-541

Accept



Setup Start

Revision ID:

Item Name:

Replacement Skidtube

Start Date: 6/10/2010

QC: ___

Required Date: 6/25/2010

Start Qty: 1.00

Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals:	
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Process Plan: _____ Date:

Date:

Tooling:

SPC (Y/N):

Date: Date:

Run

Start Stop

Stop



Sequence ID/

Work Center ID

150

Skidtubes Skidtubes

Operation Description

Set Up/ **Run Hours** Tool ID

Tool # Plan Code

Accept Qty

Reject Reject Qty

Insp. Number Stamp

Skidtubes

Memo

0.00

0.00

1-Open Ø0.313" and 0.375" crossbolt spacer holes using DT8743 as per Dwg D3274

2-Deburr crossbolt spacer holes as per Dwg D3274 and blow out chips from inside the tube

3-Bond web in place as per Dwg D3274 & QSI 015.

A/R□□Sikaflex-291□ <u>M(l 35(</u>3) Sikaflex expire date: □ 10/13/3 □ Start: □ 10/6/6 □ Time: □ 3.50 □ Finish: □ 06/7 □ Time: □ 9:10Acc

(Adhere for 12 hours)

QC5- Inspect part completeness to step on W/O

M 10/6/16

160

Quality Control

Memo

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES							1.		
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DATE	STEP	Description of NC Section A	Initial	Corrective Action Action Desc	cription	Sign &	Verification Section		Approval Chief Eng	Approval QC Inspector	
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Work Ord Friday, June	A .						1			4	Page 5
Revision ID: Item Name: Start Date: Required Date	D206-642-54 Replacement 5 6/10/2010 : 6/25/2010				Cust Item Customer:	ID:		. .	Setup Star Stop		Î
Reference: Approvals:	Process Pla	an:	Date:			oate:		1	Run Star Stop		
Sequence ID/ Work Center I 170 Skidtubes Skidtubes	D	drop pins in 2- DRILL P. OPEN HOL 3-DRILL TO END OF TU DEBURR I REMOVE A 4- Counters	I crossbolt spacer holes to ILOT HOLES FOR WE JES TO .297" Deburr DE PIN HOLE .640" DL JBE INSIDE OF HOLE AS N ANY FOREIGN OBJEC ink crossbolt spacer hole		-1T2 -18935 FWD	Tool#	Plan Code 10	/	Reject Qty	Reject Number	Insp. Stamp
180 QC Quality Control		5- prepare for QC5- Inspect part complement	Ü	0.00 L23.00	8.4.7°	01061	9 5	@			

Dart Aerospace Ltd

W/O:			V	ORK ORDER CHANG	GES					
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Work Order ID 59782

Friday, June 11, 2010 11:43:14 AM



Page 6

Item ID:

D206-642-541

Accept

Setup Start

Revision ID:

Item Name:

Replacement Skidtube

Start Date:

Required Date: 6/25/2010

6/10/2010

Start Qty: 1.00

Req'd Qty: 1.00



Cust Item ID:

Customer:

Tool ID

Reference:

Approvals:

Process Plan:

Operation

Description

Skidtubes

Date:

Date:_____

Tooling:

SPC (Y/N):

Set Up/

Run Hours

Date:

Date:

Tool # Plan

Code

Start

Stop

Reject

Number

Reject

Qty

Run

Accept

Qty

Stop



Insp.

Stamp

Sequence ID/

Work Center ID

190

Skidtubes Skidtubes

Memo

Memo

0.00

0.00

1-Insert D2649 & D3275-1 crossbolt spacers. Weld as per QSI 004 and Dwg D3274. Remember to back drill each hole before welding the other side. Use

aluminum rod

 $A/R \square \square Aluminum Rod \square M//2$

3-Grind cross bolt welds flush as per Dwg D3274.

4-Counterbore 5/16" x 0.750" deep as per Dwg D3274 and deburr.

200

QC

Quality Control

QC5- Inspect part completeness to step on W/O

Dart Aerospace L	rospace Ltd	
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W/O:		WORK ORDER CHANGES								· `m
DATE	STEP	PRO	CEDURE CH	ANGE		Ву	Date	Cty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Work Order ID 59782

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Page 7

Item ID:

D206-642-541

Accept

Setup Start

Revision ID:

Replacement Skidtube Item Name:

Start Date:

6/10/2010

Start Qty: 1.00

Required Date: 6/25/2010 Req'd Qty: 1.00

Date:_____

Cust Item ID:

Date:

Tool # Plan

Code

Customer:

Reference:

Approvals:

Process Plan: QC: ____

Date: _____

Tooling:

SPC (Y/N):

Date:

Tool ID

Start Stop

Stop

Sequence ID/ **Work Center ID**

210

Quality Control

Operation Description

QC10- Inspect visual per QSI004- ground welds

Set Up/ **Run Hours**

Sulo6130

Run

Reject

Oty

Insp.

Stamp

Reject

Number

Qty

Accept

220

HandFinish

Hand Finishing

Pressure Wash per QSI005 4.3

Memo

0.00

Memo

0.00

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch

1 BK 10-7-1

230

Powdercoat

Powder Coating

White Gloss(Ref:4.3.5.1) per QSI005 4,3-Alum

Memo

0.00

0.00

1 Bl 15-7-1

Dail Aciospace Li	rt Aerospace Lt	d
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W/O:		WORK ORDER CHANGES					1		,		
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Work	Orde	r ID	59782
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Friday, June 11, 2010 11:43:14 AM



Page 8

Item ID:

D206-642-541

Accept



Setup Start



Revision ID:

Item Name: Replacement Skidtube

Required Date: 6/25/2010

Start Date:

6/10/2010

QC:

Start Oty: 1.00

Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

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Process Plan: _____ Date: Tooling:

Date: _____

SPC (Y/N):

Date: Date:

Start

Run

Stop

Stop

Sequence ID/ Work Center ID

240

QC

Quality Control

Operation Description

QC3- Inspect Part Finish

Memo

Set Up/ Run Hours

10/07/05

Tool ID

Tool # Plan

Qty Code

Accept

Reject **Qty**

Reject Insp. Number Stamp

250



Hand Finishing

HandFinishing

Memo

Memo

0.00

0.00

0.00

=> M 10/02/05 X Ø

2-Install inserts as per Dwg D3274. Use a drop of Sikaflex inside insert holes a

A/RODSikaflex-291 DMU35/GD

Sikaflex expire date:

260

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

50/2/0

Inspect Nut Plate & Inserts

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES							
DATE	STEP	PROC	EDURE CH	ANGE	By Date C			Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No		PAR #:							·
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Friday, June 11, 2010 11:43:14 AM



Page 9

Item ID:

D206-642-541

Accept

Setup Start

Stop



Revision ID: Item Name:

Replacement Skidtube

Start Date:

6/10/2010

QC: _

Start Qty: 1.00

Required Date: 6/25/2010 Req'd Qty: 1.00



Date:_____

Cust Item ID:

Customer:

Tool ID

Reference:

Approvals:

Process Plan:

Date:

Tooling:

0.00

SPC (Y/N):

Date:

Date:

Run Start

Stop



Sequence ID/ Work Center ID

270

HandFinish Hand Finishing **Operation Description** Set Up/ **Run Hours**

10/07/06

Code

Qty

Tool # Plan

Accept Reject Qty

Reject Number Insp. Stamp

Memo 1-Install wearpads & gaskets as per Dwg D3274.

2-Install ring as per Dwg D3274

✓A/R□□Sikaflex-291 □ 1/1135/9□□ Sikaflex expire date:

HAND FINISHING RESOURCE #1

D 10/4

3-Inspect for foreign objects as per QSI 024

4-Spray inside of tube on both sides of web with LPS-3 LA/R LPS-3 Batch: ν/A

5-Install Aft Cap and seal with Sikaflex. Clean excess adhesive.

A/R | Sikaflex-291 | MI 1 3 5 5

Sikaflex expire date:

280

Memo

dolfolo, 2

Quality Control

QC5- Inspect part completeness to step on W/O

Dart Aerospace Ltd

W/O:		17.00	V	ORK ORDER CHANG	ES							
DATE	STEP	PROC	EDURE CH	CHANGE By Date C			ety	Approval Chief Eng / Prod Mgr	Approval QC Inspector			
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DATE	STEP	Description of NC Section A	Corrective Action Section Initial Action Description			Sign & Section			Approval Chief Eng	Approval QC Inspector		
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Work Order ID 59782

Friday, June 11, 2010 11:43:14 AM



Page 10

Item ID:

D206-642-541

Accept

Setup Start

Stop



Revision ID:

Replacement Skidtube Item Name:

Start Date:

6/10/2010

Start Qty: 1.00

Required Date: 6/25/2010

Req'd Qty: 1.00



Cust Item ID:

Customer:

Tool ID

Reference:

Approvals:

Process Plan: QC:

Date:_____

Date: Tooling:

SPC (Y/N):

Date: Date:

Tool # Plan

Code

Run

Reject

Qty

Stop

Sequence ID/ Work Center ID

290

Packaging

Packaging

Operation Description

Identify as per dwg & Stock Location:

Set Up/ **Run Hours**

0.00

0.00

Accept

Qty

Start

Reject Insp. Number

Stamp

300

QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

Memo

0.00

ME 10-7-8

Dart A	Aerospace	Ltd
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W/O:			W	ORK ORDER CHAN	GES	**				
DATE	STEP	PRO	CEDURE CH	ANGE		Ву	Date	ety	Approval Chief Eng / Prod Mgr	Approval QC Inspector
										
Part No	•	PAR #:	Fault Cat	egory:	NCR	: Yes I	No DQA:		Date:	
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DATE	STEP	Description of NC Section A	Initial Chief Eng	Action Description	ection B	Sign &	Verifica Section		Approval Chief Eng	Approval QC Inspector
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D2649

Manufactured

No

Cross Bolt Spacer

Location	Loc Qty	Loc Code
LG	147	
55000	6	

58545

190

Each

141

147.0000

12 BE 10/06/28

Dart Aerospace Ltd W/O: **WORK ORDER CHANGES** Approval DATE **Approval** STEP PROCEDURE CHANGE By **Dtv** Date Chief Eng / QC Inspector Prod Mar Part No: ______ PAR #: ____ Fault Category: _____ NCR: Yes No DQA: ____ Date: _____ Resolution: _____ Disposition: ____ QA: N/C Closed: ___ Date: _____ **WORK ORDER NON-CONFORMANCE (NCR)** NCR: **Corrective Action** Section B **Description of NC** Verification DATE **Approval Approval STEP** Sign & Initial **Action Description** Section A Section C QC Inspector Chief Eng Chief Eng Chief Eng Date

Picklist Print

Friday, June 11, 2010 11:43:18 AM

Work Order ID: 59782

Parent Item:

Parent Item Name:

D206-642-541

Replacement Skidtube

Comments:

IPP Rev:B□05.09.23□Revised per D206-642 Rev. J□KJ/JLM

IPP Rev:C 07-02-23 IPP Rev:D 07-12-06

Added SS Wearplates & Gaskets JLM

No

No

IPP Rev:E

08-04-17

Purchased

replace NAS1515H3L to D3672-1 DD as per PAR 08-015 DD verified by:EC

D3275-1

Manufactured No 190

Each

71.0000

12

12

2

Start Date: 6/10/2010

Start Oty: 1.00

Crossbolt Spacer

LG 53453 57513 58179

Location

250

Loc Qty

71

8

57

6

Each

Loc Code

4,523.000

BE 10/06/23

Required Date: 6/25/2010

Required Qty: 1.00

CR3212-4-03

Cherry Rivet

<u>Location</u>	Loc Qty	Loc Code		
ST311	4523			
111359	5			

250

112314 114436 114450 114859

30 1476 1012 2000

Each

10/07/05

D3415-041

Nut Plate

Location

ST056

Loc Qty

Loc Code

67.0000

x1 20/07/05

Manufactured

67 67

Dart Aerospace I	Ltd
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Picklist Print

Friday, June 11, 2010 11:43:18 AM

Work Order ID: 59782 Parent Item: D206-642-541 Parent Item Name: Replacement Skidtube Start Date: 6/10/2010 Required Date: 6/25/2010 Comments: IPP Rev:B□05.09.23□Revised per D206-642 Rev. J□KJ/JLM Start Otv: 1.00 Required Oty: 1.00 07-02-23 Added SS Wearplates & Gaskets JLM IPP Rev:D 07-12-06 replace NAS1515H3L to D3672-1 DD IPP Rev:E 08-04-17 as per PAR 08-015 DD verified by:EC CCR264SS3-3 No Purchased 250 554,0000 Each Cherry Rivet Location Loc Otv Loc Code ST311 554 112314 113539 60 XZ N 10107105 490 ALS4-1032-130 Purchased No 250 Each 5,752.000 Insert Location Loc Otv Loc Code PKG11 5000 X78 9 1007105 (114723 5000 ST282 305 110511 38 114407 267 ST381 447 114654 447 D3536-15 Manufactured 270 Each 19.0000 1 Gasket Location Loc Qty Loc Code FP 56055 XZ 11 10 107 105 FP11 12 12

Dart Aerospace

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DATE STEP PROCEDURE CHAN			ANGE	Ву	Date	oty	Approval Chief Eng / Prod Mgr	Approval QC Inspector		
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Friday, June 11, 2010 11:43:18 AM

Work Order ID: 59782

Parent Item:

D206-642-541

Parent Item Name:

Replacement Skidtube

Comments:

IPP Rev:B□05.09.23 □ Revised per D206-642 Rev, J□KJ/JLM

IPP Rev:C IPP Rev:D

07-02-23 Added SS Wearplates & Gaskets JLM 07-12-06

IPP Rev·E

08-04-17

replace NAS1515H3L to D3672-1 DD as per PAR 08-015 DD verified by:EC

No

No

D3536-23

Manufactured No

Manufactured

Manufactured

270

Each

12 0000

Start Date: 6/10/2010

Start Oty: 1.00

Gasket

D3536-35

Gasket

Location

FP011

12 12

Loc Otv

270 Each 19.0000

Loc Code

Loc Code

10/07/05

Required Date: 6/25/2010

Required Oty: 1.00

Location FP012

58683

Loc Oty 19 7

270

27.0000

XI Al 16/07/05

1

D3536-39

Gasket

Location FP

51637

FP12

58571

Loc Qty

12

Each

26 12

14

Loc Code

X 10 07 05

Dart A	Aeros	pace	Ltd
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W/O:			V	ORK ORDER CHANG	ES				
DATE	DATE STEP PROCEDURE CHANGE By Date		Date	Cty	Approval Chief Eng / Prod Mgr	Approval QC Inspector			
Part No	:	PAR #:	Fault Ca	tegory:	NCR: Yes	No DQA:		Date: _	
	R	esolution:	Disposition: QA: N/C Closed:				l: Date:		
NCR:	;	\	WORK OR	DER NON-CONFORMA	NCE (NC	R)			
DATE	STEP	Description of NC	Description of NC Section A Corrective Action Initial Action Descri				cation		Approval
	,	Section A	Chief Eng	Action Description Chief Eng	Dat			Chief Eng	QC Inspector
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Picklist Print

Friday, June 11, 2010 11:43:18 AM

Required Date: 6/25/2010

Required Qty: 1.00

Work Order ID: 59782

Parent Item:

D206-642-541

Parent Item Name:

Replacement Skidtube

Comments:

IPP Rev:B□05.09.23□Revised per D206-642 Rev. J□KJ/JLM 07-02-23

IPP Rev:D 07-12-06

Added SS Wearplates & Gaskets JLM replace NAS1515H3L to D3672-1 DD

No

No

IPP Rev:E

08-04-17 as per PAR 08-015 DD verified by:EC

> No Manufactured

270

Each

16.0000

Loc Code

Start Date: 6/10/2010

Start Qty: 1.00

Wearshoe

D3535-15

Manufactured

Manufactured

FP FP18

59236

270

6 10

Loc Qty

Loc Qty

10 Each

15.0000

D3535-35



Wearshoe



Location

FP

FP18

Location

FP018

270

13 Each

15 2

VIM 10/07/05

D3535-39



Wearshoe

Loc Qty

51619

12 12 Loc Code

13.0000

Loc Code

X1 10 10 10 1 05

X1 M 10/07/05

Dart Aerospa	ce	Ltd
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W/O:			W	ORK ORDER CHANG	ES		1		
DATE	STEP	PRO	OCEDURE CH	ANGE	By Date		Oty Approval Chief Eng / Prod Mgr QC Ins		
						1			
									1
Part No	:	PAR #:	Fault Cat	egory:	NCR: Yes	No DQA:		Date:	
Resolution:			Dispositi	Disposition: QA: N			Date:		
NCR:			WORK ORD	DER NON-CONFORMA	NCE (NC	R)			
DATE	STEP	Description of NC Section A	Initial	Corrective Action Section Action Description	on B Sign	Verifica:		Approval	Approval
		Section A	Chief Eng	Chief Eng	Date		_	Chief Eng	QC Inspector
	7								
	,								
	L								

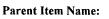
Required Date: 6/25/2010

Required Qty: 1.00

Friday, June 11, 2010 11:43:18 AM

Work Order ID:	59782
Parent Item:	D206-

-642-541



Replacement Skidtube

Comments:

IPP Rev:B□05.09.23□Revised per D206-642 Rev, J□KJ/JLM

07-02-23 IPP Rev:D 07-12-06

Added SS Wearplates & Gaskets JLM

No

No

replace NAS1515H3L to D3672-1 DD IPP Rev:E 08-04-17 as per PAR 08-015 DD verified by:EC

No Manufactured

270 Each 11.0000

Start Date: 6/10/2010

Start Oty: 1.00

Wearshoe

D3537-3

D3535-23

Manufactured No

Manufactured

Location

FP21

Loc Qty

11 270 Each

11

Loc Code

10.0000

W 10107105

Wearpad

Location FP17

57512

Loc Qty 10

270

10 Each

12

3

36

36

Each

Loc Code

49.0000

X1 10 10 1 WEIX

D3537-1

Wearpad

FP 55465 FP17

Location

FP18

57713 58178

59710

Loc Oty Loc Code

B59116

0.0000

10/07/05

AN960C10L

NAS1149C0332

Purchased

1115600

270

washer

Dart Aerospace Ltd

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W/O:			WC	ORK ORDER CHANG	ES		T		5.	
DATE	STEP	PRO	OCEDURE CHA	NGE	Ву	Date	Cty Approval Chief Eng / Prod Mgr Approv			
•										
Part No	:	PAR #:	Fault Cate	gory:	_ NCR: Yes	No DQA:		Date:		
Resolution:			Disposition	Disposition: QA: N/C Closed:			Date:			
NCR:			WORK ORDE	ER NON-CONFORMA	NCE (NCF	R)				
DATE	STEP	Description of NC		Corrective Action Section		Verificat	ipn	Approval	Approval	
		Section A	Initial Chief Eng	Action Description Chief Eng	Sign 8 Date		d 	Chief Eng	QC Inspector	
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Page 7

Fridav. June 11, 2010 11:43:18 AM Work Order ID: 59782 Parent Item: D206-642-541 Parent Item Name: Replacement Skidtube Start Date: 6/10/2010 **Required Date: 6/25/2010** IPP Rev:B□05.09.23□Revised per D206-642 Rev. J□KJ/JLM Comments: Required Oty: 1.00 Start Otv: 1.00 IPP Rev:C 07-02-23 Added SS Wearplates & Gaskets JLMD replace NAS1515H3L to D3672-1 DD IPP Rev:D 07-12-06 IPP Rev:E 08-04-17 as per PAR 08-015 DD verified by:EC AN960C416 NAS1149C0463 Purchased Nο 270 Each 118 0000 washer Location Loc Qty Loc Code ST346 118 XI Al 10/07/05 118 D3672-1 Manufactured No 270 Each 1,315,000 Phenolic Washer Location Loc Otv Loc Code ST077 1315 Y2 91 10107105 315 1000

AN3C4A

BOLT

Purchased No Location

ST350

Loc Oty

1525

114103 501

114108 14

114416 12

114523 2

270

Each

996

Loc Code

1.525.000

X80 HI 10/04/05

80

Dart Aerospace L	td
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W/O:			٧	VORK ORDER CHANG	ES			1		a .	
DATE	STEP	PROC	PROCEDURE CHANGE By Date Qty Chief		Approval Chief Eng / Prod Mgr	Approvar					
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	-										
			- · · · ·					T			
		·									
Part No: PAR #:											
Resolution:								Date:			
NCR:		W	ORK OR	DER NON-CONFORMA	ANCE	(NCR)					
DATE	STEP	Description of NC Section A	Initial	Corrective Action Section Action Description	on B	Sign &	Verifica Section	ion C	Approval Chief Eng	Approval QC Inspector	
			Chief Eng	Chief Eng		Date		<u> </u>			
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Picklist Print

Friday, June 11, 2010 11:43:18 AM

Work Order ID: 59782

Parent Item:

D206-642-541

Parent Item Name:

Replacement Skidtube

Comments:

IPP Rev:B□05.09.23□Revised per D206-642 Rev. J□KJ/JLM Added SS Wearplates & Gaskets JLM□

IPP Rev:C 07-02-23 IPP Rev:D 07-12-06

replace NAS1515H3L to D3672-1 DD

IPP Rev:E

08-04-17 as per PAR 08-015 DD verified by:EC

Start Date: 6/10/2010

Required Date: 6/25/2010

Start Qty: 1.00

Required Qty: 1.00

AN4C5A

Purchased

No

270

Each

519.0000

BOLT

Location ST346

Location

FP-4

FP6

Loc Qty 519 19 500 Loc Code

III 10162105

VI N 10/07/08

D2646

Aft Cap

No

270

270

Each

109.0000

Manufactured No

Manufactured

52663

Loc Oty Loc Code 99 99 10

10 Each

Loc Qty

37

1

23

13

37.0000

D3413-1 Ring

> Location ST473

51586 53446 Loc Code

X W 10/07/05

Dart Aerospace Ltd W/O: **WORK ORDER CHANGES Approval** DATE **Approval** STEP PROCEDURE CHANGE dty By Date Chief Eng / QC Inspector Prod Mgr Part No: ______ PAR #: ____ Fault Category: _____ NCR: Yes No DQA: ____ Date: _____ Resolution: _____ Disposition: ____ QA: N/C Closed: ____ Date: WORK ORDER NON-CONFORMANCE (NCR) NCR: **Corrective Action** Section B **Description of NC Verification** DATE **STEP Approval Approval** Initial **Action Description** Sign & Section A Section Chief Eng QC Inspector Chief Eng Chief Eng Date



	DESIG	CP	DRAWN BY	DART AEROSPACE USA, INC.
	CHECK	(ED	APPROVED 4	DRAWING NO. REV. D
ı		#		D3274 SHEET 1 OF 4
	DATE			TITLE SCALE
	06.1	2.19		SKIDTUBE ASSEMBLY NTS
	Α		04.03.15	NEW ISSUE
	В		04.08.09	MOVE SADDLE HOLE: 42.14 WAS 42.76
	С		05.03.16	ADD -043; NEW INSERTS
	D		06.12.19	NEW INSERTS, SS WEARSHOE + GASKET

Qty -041	Qty -043	Part Number	Description
X		D3274-041	SKIDTUBE ASSEMBLY
	Х	D3274-043	SKIDTUBE ASSEMBLY
1	1	D2600-1-240	EXTRUSION
1	1	D2646	AFT CAP
12	12	D2649	CROSS BOLT SPACER
12	37	D3275-1	CROSS BOLT SPACER
1	1	D3282-041	FLOAT WEB
1	1.	D3285-1	CAP
1	1	D3413-1	RING
1	1	D3415-041	NUT PLATE
1	1	D3535-15	WEARSHOE
1	1	D3535-23	WEARSHOE
1	1	D3535-35	WEARSHOE
1	1	D3535-39	WEARSHOE
1	1	D3536-15	GASKET
1	1	D3536-23	GASKET
1	1	D3536-35	GASKET
1	1	D3536-39	GASKET
9	9	D3537-1	WEARPAD
9	1	D3537-3	WEARPAD
78	78	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, AELS-1032-130)
80	80	AN3C4A	BOLT
1	1	AN4C5A	BOLT
1	1	AN960C416	WASHER
80	80	AN960C10L	WASHER
2	2 .	CCR264SS3-3	RIVET
2	2	CR3212-4-03	RIVET
2	2	NAS1515H3L	WASHER

GENERAL NOTES:

- 1. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 2. DAMAGE TOLERANCE ON FWD BEND:

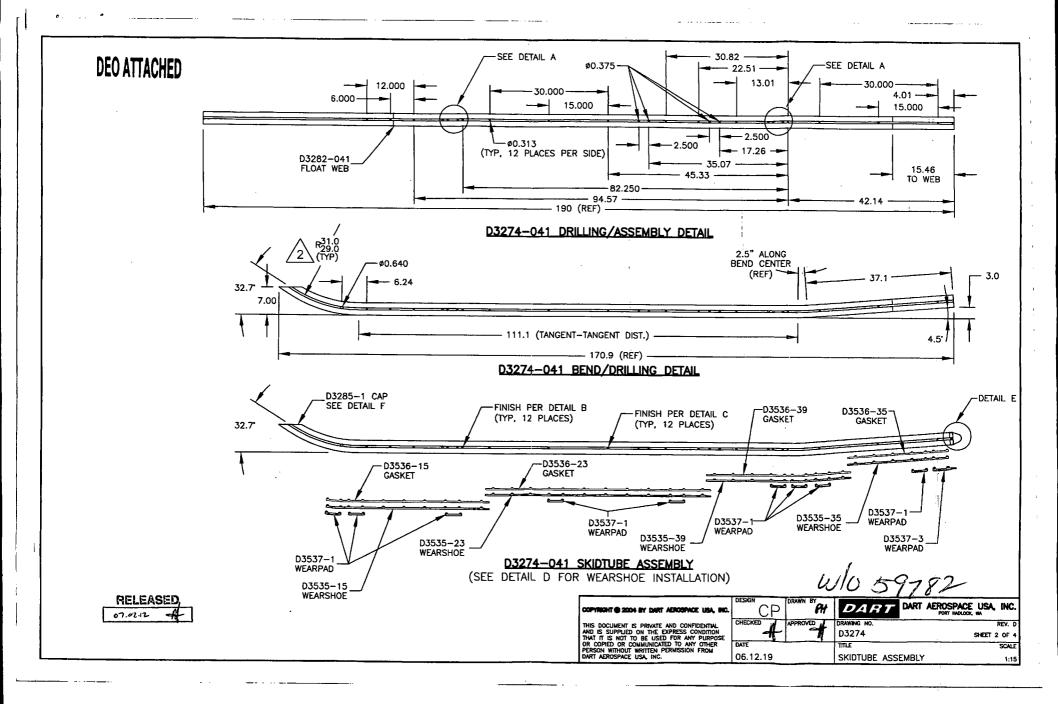
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 7 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.

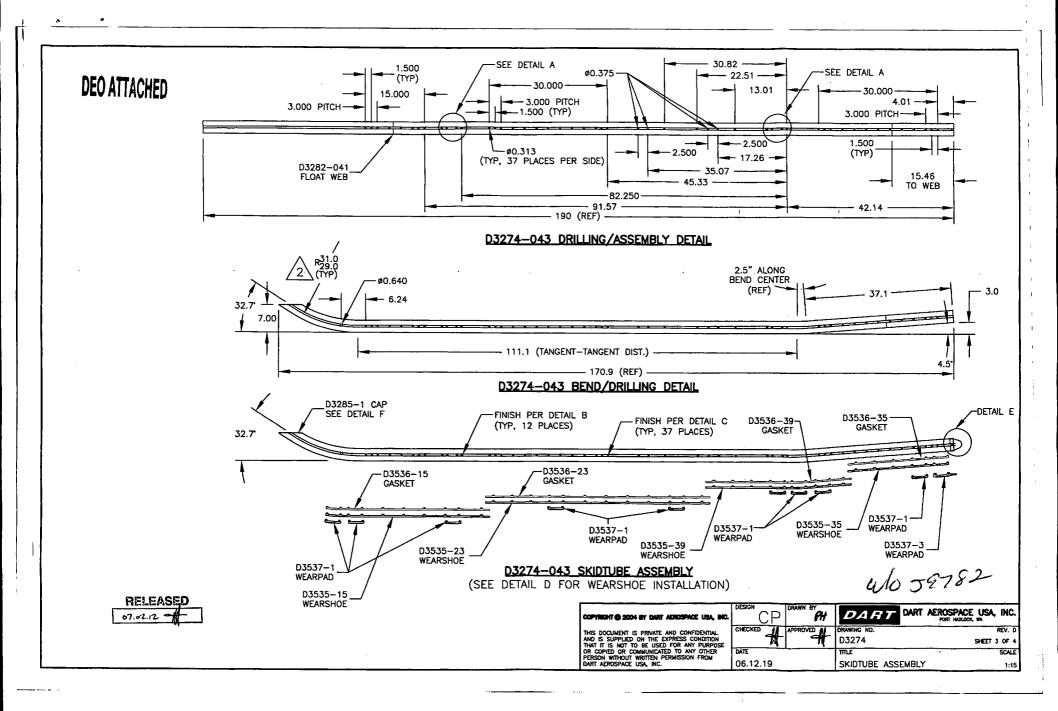
- 3. ALL HOLES DRILLED ON CENTERLINES.
- 4. BOND D3282-041 FLOAT WEB INTO D3274-1/-3 OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 015. ENSURE HOLES LINE-UP.
- 5. WELDING TO BE DONE PER DART QSI 004.
- 6. FINISH: ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1 --POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
- 7. DRILL Ø0.297 HOLES FOR ALS7-1032-130 INSERTS USING DT3274-1T2 BEFORE FINISH. INSTALL ALS7-1032-130 INSERTS AFTER FINISH. SEAL WEARSHOE BOLTS WITH SIKAFLEX -241/-291.
- 8. SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.

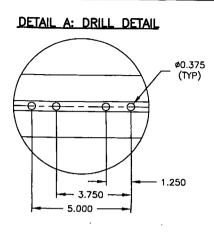
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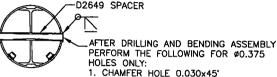






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DETAIL BFOR Ø0.375 HOLES ONLY

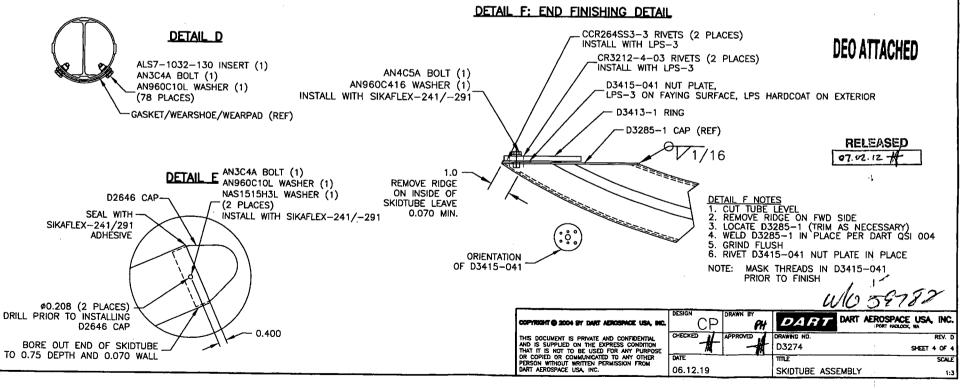


- 1. CHAMPER HOLE 0.030x45*
 2. INSERT D2649 SPACER
- 3. WELD INTO PLACE AND GRIND FLUSH
- 4. C'BORE TO Ø0.313x0.75 DEEP

FOR Ø0.313 HOLES ONLY

D3275-1 SPACER

CHAMFER 0.030x45*



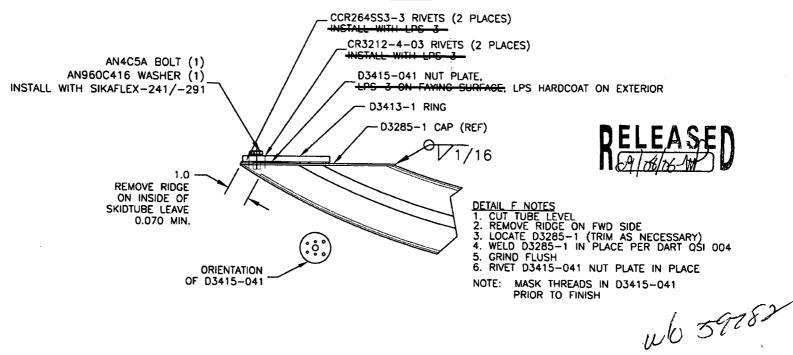
DRAWING			DART AEROSPACE US	SA, INC D.E.O. NO.	SHEET NO.	SCALE
D3274	SKIDT	UBE ASSEMBLY	ENGINEERING ORD	DER D3274-D-1	SHEET 1 OF 1	NTS
DRAWN	a	CHECKED	MFG. APPR.	APPROVED , MAT	DE APPR.	
DATE	09.06.17	DATE 09.06-23	DATE 59/06/23	DATE 09/06/2	DATE 09.06.23	

LPS-3 IS NO LONGER USED DURING ASSEMBLY OF SKIDTUBE.

AMEND NOTE 8: "SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS 3" AFTER FINISH AND INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES 'LPS PROCYON' AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER."

AMEND DETAIL F AS SHOWN:

DETAIL F: END FINISHING DETAIL



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NO.	320	
	$12 \cdot 12 \cdot$	

AWS D17.1.2001 QUALIFICATION TEST RECORD

Name: Barcla Ellight	
Job number: 57356	
Part number: Dack-1612 - 541	
Description: Noal tube	
Welding Process: Tig[Mig[]	
Base materiel: Aluminium	
Current: AC DC]	

TEST REQUIREMENTS AND RESULTS

Visual: Penetration:	pass[] fail[] pass[] fail[]
UNACCEPTABLE	
Cracks: Undercut: Pin holes: Overlap (cold lap) Porosity (surface): Coloration:	pass[] fail[] pass[] fail[] - pass[] fail[] pass[] fail[] pass[] fail[]
Qualifier / At // 1	Date of Test Coupon 10.05.05
Welder Trocky Wist	Date of Test Coupon

The above named individual is qualified in accordance with AWS D17.1.2001 to weld